

NASA - LaRC
SAFETY NEWSLETTER
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HEARING PROTECTION

Our hearing is a really amazing ability that we have and use without giving it a thought. Our ears process sounds so they get to the brain and we hear them. Some of the things that our hearing does that we take for granted are: distinguish the sounds so that we can tell a shout from a whisper, music from machinery, and the voice of a friend from the voice of a stranger. Your ears process noise, which can cause damage. Noise above certain levels can damage parts of the ear that stop you from hearing sound in certain frequencies. This type of hearing loss is slow and not noticed at first but noise induced hearing loss is serious and permanent. Here at LaRC we have many work areas that have high noise levels. This is why you may have to wear a noise monitor for a day or so to see the actual exposure level that you are exposed to in a normal work day. This is also why you see those boxes of foam ear plugs in certain areas. If the levels are above the NASA Action level, and you are a Government Employee you will be placed in the LaRC Hearing Conservation Program. The LaRC Hearing Conservation Program is used to measure any change in your hearing from year to year while working in a high noise area.

TRAINING REQUIREMENTS

The Occupational Safety and Health Administration, (OSHA) requires that a training program be instituted for all employees who are in a hearing conservation program. This training program is the responsibility of the Occupational Health Services Office. It is also stated in 29 CFR 1910.95,(k),(2) that this training program shall be repeated annually for each employee included in the hearing conservation program. If you have any questions concerning this annual training, contact the Occupational Health Office at extension 4-3193.

GENERAL HAZARDS

The main hazard of noise is the loss of hearing, this can either be partial or total, and is usually permanent. Sometimes after one long exposure to loud noise you may have a temporary hearing loss. This loss will return, but long term exposure without proper protection is very serious, permanent, and not the only problem caused by too much noise.

NOISE CAN:

- * Keep you from hearing safety warnings, or understanding what you hear.
- * Cause a strain on you by trying to talk over loud sounds.
- * Cause stress that affects you physically and mentally.

HEARING LOSS SYMPTOMS:

How can you tell if you are losing your hearing? It's not easy, but here are some signs of hearing loss:

- * Noise or ringing in your ears.
- * Trouble hearing people when they speak to you.
- * Trouble hearing certain high or soft sounds.
- * Needing the volume higher on TV or radio, so much that others complain.

EXAMPLES OF NOISE LEVELS:

The basic unit of level in acoustics is the "Decibel" (dB). In acoustics, the term "level" is used to designate that the quantity is referred to some reference value, which is either stated or implied. The letter following dB, i.e. A, B, or C represents frequency characteristics of the average human ear for various sound intensities, these are called "weighting networks". The "A" weighted network is the relative frequency response of the average ear when sound pressure levels of about 20 to 30 dB are heard.

- * Whisper - 10 dBA
- * Quiet house - 30 dBA
- * Street sounds - 70 dBA
- * Factory - 80-90 dBA
- * Pneumatic drill - 100 dBA
- * Car horn - 120 dBA

PROTECTION AGAINST HAZARDS

The primary method used to protect our hearing is the use of ear plugs or muffs. In some cases there is a need for both plugs and muffs to be worn at the same time. These devices are designed to reduce the hazardous noise, yet allow the sounds which fall in the speech frequencies to pass through. This allows you to work in a high noise area without risking a hearing loss and also be able to communicate with fellow workers. Any questions that you have concerning the LaRC noise control and hearing conservation program refer to the Langley Handbook, LHB 2710.1.

SAFETY CHANNEL 11 UPDATE

The Office of Safety, Environment, and Mission Assurance provides a 24 hour viewing channel which broadcasts videos on topics of Safety, Environmental and Security issues. At the present time there are two VCR's in operation running two tapes, six times each a day. The following is the current times for the presentations:

SECURITY/ENVIRONMENTAL TRAINING	SAFETY TRAINING
8:00 a.m.	9:00 a.m.

11:00 a.m.
12:00 p.m.
2:00 p.m.
5:00 p.m.
8:00 p.m.

10:00 a.m.
1:00 p.m.
4:00 p.m.
7:00 p.m.
10:00 p.m.

This is a great way to have a safety meeting for your group and with the times covered you can have all shift workers see the same video.

SAFETY CLASSES OFFERED

Just a reminder that the following safety training classes are available to be presented for you at your safety meetings.

Confined Spaces (permit required)
Confined Space Awareness
Personal Protective Equipment (PPE)
Ergonomics (Office or Industrial)
Material Safety Data Sheets (MSDS)
Heat Stress
Cryogenics
Chemical Safety (Chemical Refresher)
General Office Safety

If you would like to setup a class, contact your supervisor and he can schedule by contacting Butch Jones at 4-8743.